1. **Which description is correct about router configuration command "ip nat inside"?**

**A. It starts a router interface working as firewall.**

**B. It starts a router interface working as an Intranet interface of NAT box.**

**C. It shows the internal NAT address and port information of a router.**

**D. It changes the packet transmission direction of a NAT router.**

1. **Which of the following commands can be used to display middle routers to a destination host?** 
   1. **nslookup B. tracert C.arp D.netstat**
2. **Some broadcast systems also support transmission to a subset of the machines, which is known as \_\_\_\_\_\_\_\_\_\_.**
   1. **A. unicasting B. broadcasting**
   2. **C. multicasting D. anycasting**
3. **Which is not provided by the data link layer of the OSI model?**

**A. framing B. flow control**

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1. **In the \_\_\_\_\_\_\_\_ system, the users take turns, each one periodically getting the entire bandwidth for a little burst of time.**

**A. FDM B. TDM**

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1. **A telephone switch is a good example of \_\_\_\_\_\_\_\_ switching.**

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1. **There are two types of transmission technology that are in widespread use. They are Point-to-point links and .**

**A. Broadcast links. B. end-to-end links**

**C. peer-to-peer links D. virtual links.**

**============== physical layer ================**

1. **A noisy channel has a bandwidth of 4 KHZ, its S/N ratio is 511, then its maximum data rate will be .**

**A. 36 kbps B. 32 kbps C. 63 kbps D. NONEOF ABOVE**

1. **Which one can be used as a key component of optical transmission system?**

**A. UTP B. semiconductor laser device**

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1. **The cable between toll office and the end office of telephone company are known as the .**

**A. local loop B. trunk C. microwave line D. coaxial cable**

1. **It is impossible for to cause transmission impairments of telephone local loop.**
2. **different Fourier components propagating at different speed**
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4. **crosstalk between two close wires**
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6. **An T1 channel contains 24 PCM signals, its data rate is .**

**A. 2.048 Mbps B. 1.544 Mbps**

**C. 64kbps D. 2.5 Gbps**

1. **18. A CDMA receiver gets the following chips: (+1 +1 -1 +3 +1 +1 -3 +1). Assuming the chip sequences defined in following:**

**Station A: (-1 +1 -1 +1 +1 +1 -1 -1) Station B: (-1 -1 -1 +1 +1 -1 +1 +1) Station C: (-1 +1 -1 -1 -1 -1 +1 -1) Station D: (-1 -1 +1 -1 +1 +1 +1 -1) Which stations transmitted, and which bits did each one send?**

**A. Station A transmitted bit 0 B. Station B transmitted bit 1**

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**============== data link layer ================**

1. **Bit string 1110111111101 will become after bit stuffing.**

**A. 11101111011101 B. 11101111101101**

**C. 1110111111101 D. 11101111110101**

1. **Which field of PPP frame can be omitted to improve efficiency during frame transmission?**

**A. checksum B. control C. protocol D. length**

1. **What is the remainder obtained by dividing x7+x5+1 by the generator polynomial x3+1?**

**A. 110 B. 011 C. 111 D. None of above**

1. **Which is not a correct method to build VLANs?**

**A. Every port of switch is assigned a VLAN ID;**

**B. Every port of switch is assigned a TCP port number;**

**C. Every MAC address is assigned a VLAN ID;**

**D. Switch ports sending and receiving payload of the same layer 3 protocol are assigned the same VLAN ID;**

1. **To correct 3-bit errors, how many Hamming distance do we need?**

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1. **Which is not the private address that will not appear in Internet datagram?**

**A. 10.3.18.82 B. 192.168.8.3**

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1. **Which protocol is used in command “ping 10.214.8.9”?**

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1. **is not a legal IPV6 address.**

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1. **RIP is a .**

**A. Interior Gateway Protocol B. Exterior Gateway Protocol**

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**================== transport layer =========**

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1. **In the socket programming model, which primitive will block the caller until a connection attempt arrives?**

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**A. POP B. FORM C. TELNET D. RTP**

**================== application layer =========**

1. **Which one is not a legal resource record of DNS server?**
2. **www.zju.edu.cn 86400 IN SOA star boss (43271,7200,7200,2347,8792)**
3. **zju.edu.cn 86400 IN TXT “Zhejiang university in HANGZHOU”**
4. **zju.edu.cn 86400 IN MX www.zju.edu.cn**
5. **www.intel.com 86400 IN A 218.58.102.17**
6. **When you configure static IP address parameters: IP address, subnet mask, default gateway, IP address relating to DNS, which name server’s IP address is used?**

**A. proxy name server B. authoritative name server**

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1. **A file containing popular song is delivered in email, it will be encoded as MIME message and its MIME type/subtype will be \_\_\_\_\_ most possibly.**

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